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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/901,736 | 07/10/2001 | Daigo Morizumi | CU-2590 RJS | 8472 |
| 7590 07/01/2004 | | | EXAMINER | |
| Richard J. Streit Ladas & Parry 224 South Michigan Avenue Chicago, IL 60604 | | | DICUS, TAMRA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1774 | |

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,736

Applicant(s)

MORIZUMI ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 26-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the RCE filed 02-11-04. The Examiner acknowledges cancellation of claims 7 and 9.

Claim Objections

Claim 5 is objected to because of the following informalities: the use of HB defined as a Japanese Industrial Standard. Applicant is advised to provide English translation or standard as it is a foreign standard. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is confusing how a layer comprises another layer e.g. “transferable protective layer further comprises an adhesive layer (claim 17) and/or peeling layer (claim 18)”. Further claim 17 is confusing as the claim does not clearly state what layer, i.e. main protective layer or adhesive layer, is closest the substrate. The phrase “disposed in the order of said main protective layer and said adhesive layer with said main protective layer disposed closest to said substrate film” is not clear. If there is an order, then one layer should be displaced first then the other layer. Further, a layer cannot comprise another layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4273362 to Carrier et al. in view of USPN 5,196,080 to Mizobuchi et al.

Carrier teaches an information bearing article. Patented claim 1 of Carrier claims a cover layer (14) with means for hiding indicia (functional equivalent of hiding layer) and the cover layer is laminated over the indicia (27) (pattern layer equivalent), thereby forming a multilayer structure of Figure 1. Because the cover layer is laminated over the indicia, a hiding layer formed on portions of the pattern layer is formed. The layers are on a paper substrate. The article is transferable and layers are removable because Carrier employs a release layer (peeling layer equivalency of instant claim 6) between the indicia and substrate (patented claim 1). Thus, the peeling layer is closest to the substrate as required by instant claim 6. Carrier does not teach a film substrate. However, Mizobuchi teaches a heat transfer sheet using paper or plastic film substrates (col. 1, lines 45-58 and col. 2, lines 55-68). It would have been obvious to one of ordinary skill in the art to include a film substrate to the article of Carrier because Mizobuchi teaches both paper and polymer films of EVA are functional equivalents as polymer films improve smoothness for printing purposes see col. 1, lines 45-58 and col. 2, lines 55-68. That the pattern layer and hiding layer are transferable to a print surface of transfer-receiving

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material in the presence of heat and that they are removable from the print surface by scratching are process by product limitations. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531. Both Applicant's and prior art reference's product are the same.

That the pattern layer and hiding layer are occupied by a ratio from 5 to 85% per 2 cm² of instant claim 1 or a transferable scratch area being 30 to 150% of the transfer-receiving material of instant claim 4 are optimizable features. It would have been obvious to one of ordinary skill in the art to produce a ratio from 5 to 85% per 2 cm², since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The pattern ratio effects the optical density of the printed image.

The hiding composition of instant claims 2-3 are not disclosed by Carrier. Mizobuchi teaches a heat transfer sheet that comprises a base film of PET or paper with a hot melt ink layer composition of carbon black, coloring agents, carnauba wax (binder), and aluminium powders (hiding material) that are compatible with an EVA resin. See col. 1, lines 45-58, col. 2, lines 55-68, and col. 4, lines 15-65. Hence, it would have been obvious to one of ordinary skill in the art to modify the article of Carrier to include the ingredients of instant claims 2-3 because Mizobuchi conventionally employs hot melt ink

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layers with the aforesaid ingredients in transfer layers as a filling effect of printed areas are improved (col. 3, lines 15-18 of Mizobuchi).

That the hiding layer is able to be thermally transferredand removed...” is not germane since it has been held that an element that is “being able to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Further to instant claim 4, regarding the way in which the material is to be transferred is immaterial since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The pencil scratch hardness property of claim 5 is inherent as the same components are used.

To instant claim 8, although Carrier does not disclose a pattern in the form of a logo, firm name, or a mark, printing with the ink inherently makes a mark. Logo, name, and mark are all indicia and are synonymous to pattern, design, text, or picture.

Claims 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4273362 to Carrier et al. in view of USPN 5,196,080 to Mizobuchi et al. and further in view of USPN 6,308,630 to Kurokawa et al.

Carrier is relied upon above. Carrier doesn't disclose additional components wax and an additional thermoplastic in the pattern layer of instant claim 10. Carrier does not specifically disclose further comprising a coloring agent transfer layer, an adhesive layer, a main protective layer, or a second peeling layer (instant claims 11, 12, 17, and 18).

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Kuorkawa teaches an intermediate transfer recording medium. Kurokawa discloses an intermediate transfer sheet applicable to various cards and security devices (col. 18, lines 50-68) that comprise colorant layers including a coloring agent transfer portions of heat-meltable ink (functional equivalent of pattern layer of instant claim 10 and coloring agent transfer layer of instant claim 22) of black, cyan, yellow, or magenta, or binder resins with dyes where the transferable adhesive layer and colorant layer is in a side by side, alternative relation to a transfer sheet (instant claims 15, 19, and 25). A difference is noted in one area (colorant layer arrangement) from transferable scratch layer as different materials are used (instant claim 24). Kurokawa's substrate film is of PET or paper at col. 15, lines 48-60. See further Example A1 and col. 18, lines 49-68. Multi-coloring is also provided (instant claims 20-21). See col. 3, lines 29-30, col. 12, line 58-col. 13, line 10, and col. 14, lines 20-41. The transfer portion has a multilayer structure and are laminated at col. 19, lines 15-24. Kurokawa further teaches a peelable layer (3) (second peeling layer of instant claim 11) of acrylic resin at col. 20, lines 45-65, and a receptor layer (5) of adhesives vinyl acetate copolymers (adhesive layer instant claims 12-14). See Figure 9 and col. 16, lines 20-45. The second peeling layer (3) is under the pattern layers. A releasing material of wax (may also function as a peeling/adhesive layer) since Kurokawa teaches peeling strength may be regulated by the content of releasing material added at col. 22, lines 43-68. A transferable adhesive layer 77 (transferable protective layer of instant claims 15 and 17) is alternately provided side by side and functionally protects the printed substrate. A protect layer 4 is also provided (main protective layer). Known adhesives include resins such as vinyl chloride-vinyl acetate copolymers as col. 16, lines 43-45 shows, which would be obvious to use in adhesive 77 (instant claim 16).

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Refer to col. 14, lines 25-26 and Figures 6-10. To instant claim 18, a peeling layer closest to the substrate is already provided for as set forth above by Carrier above and a protective layer 4 is disclosed by Kurokawa. Hence it would have been obvious to one of ordinary skill in the art to modify the article of Carrier to further include:

- i. A pattern layer including a binder of wax and/or a coloring agent because Kurokawa teaches the ingredients are conventional in transfer patterning as cited above.
- ii. a coloring agent transfer layer in a side by side relation in order to provide high gradation and colored detection as taught by Kurokawa at col. 12, line 68 and col. 14, lines 20-21,
- iii. an adhesive layer in a side by side relation to increase adhesive strength as taught by Kurokawa at col. 13, lines 9,
- iv. a second peelable layer between a hiding and pattern layer as instant claim 11 because Kurokawa teaches at col. 20, line 52 the advantage of peeling a transfer portion from a substrate, and
- v. a protective layer for protecting a pattern by preventing deterioration of the image at col. 1, line 57.

Because Kurokawa teaches compatibility of adjacent layers of films, it is obvious to include them in any order as they are laminated. Further, the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. To instant claim 23, carbon black is included in a resinous binder with aluminum powder as a coating in the opaque coat 22 of Carrier at col. 5, lines 5-10. While Carrier does not teach the pattern layer contains carbon black as the opaque coat is under the pattern layer

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27, Kurokawa teaches heat meltable ink layer comprises black dyes. However, because the ingredients of the pattern/color layers are similar it would have been obvious to one of ordinary skill in the art to include carbon black in a pattern layer because Carrier teaches using carbon black in a similar composition for opacity (col. 5, lines 5-10) and Kurokawa uses black dyes in the heat meltable ink layer (col. 13, line 3).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The following references are still used as set forth above for the following reasons:

1. Mizobuchi is used to teach the composition of the hiding layer.
2. Kurokawa is used to teach peeling layer and composition of the pattern layer and coloring transfer layer.

Applicant argues the transfer medium target not taught by the prior art, however, that the end product (the scratch layer transfer sheet) gets transferred to a medium does not carry patentable weight. The scratch layer is provided now for by Carrier and Carrier teaches a removable layer which means it must be transferred to something. Patentability resides in the end product, not the use or the after effects of using it.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: USPN 5803504 to Deshiens et al. Teaches multicolor overprinting of scratch-off lottery tickets.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

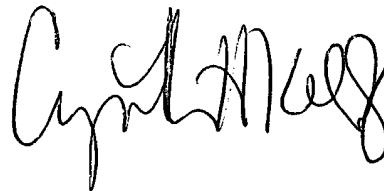
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamra L. Dicus
Examiner
Art Unit 1774

June 24, 2004

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', is written over the printed name and title.